Disguising the Performance of M-games in Social Marketing

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Abstract

Despite the explosion of mobile games (m-games) and the uptake of games as a social marketing tool for behaviour change, little is known about which game attributes (design factors within a game) are preferred by consumers for social marketing m-games. This research reports the findings of four focus groups (n=23) to propose three new categories of game attributes along with seven preferred game attributes for social marketing m-games. These results provide a unique contribution to social marketing theory given the goal of a social marketing m-game game is both entertainment and behaviour change. Further, the findings suggest strategies for practitioners seeking to develop, design and build social marketing m-games.

Introduction/Background

In the marketplace, m-games have become a dominant platform in gaming, which is estimated to be worth $100 billion by 2017 (Brightman, 2014). Recognising this upward trend, social marketers are beginning to embrace m-games as a way of increasing consumer's motivation and ability to change their behaviour (Rothschild, 1999). However, despite the enthusiasm, social marketers have developed m-games with little knowledge about the preferred game attributes required for a successful behaviour change game (Eagle et al., 2013). This gap in knowledge is particularly important given that research shows 66% of consumers quit playing an m-game after 24 hours (Gatson, 2014). Entertainment is an essential outcome of any game and social marketers face the difficult task of balancing the need for entertainment while also achieving behavioural outcomes. This balance is challenging as behavioural aspects of social marketing m-games are typically less interesting than the entertainment features. Within the literature there are two streams of game attribute theory: entertainment games and serious games. However, both areas of the literature do not reflect the distinctive aim of a social marketing m-game; facilitating a behaviour (be it change or maintenance). Thus, the purpose of this research is to identify and classify the preferred social marketing m-game attributes.

Literature Review

Recent empirical studies on serious games from related disciplines including education (Wilson et al., 2009) and public health (Vogel et al., 2006) have hinted at potentially important game attributes which may be applied to social marketing m-games. However, game attributes from other areas are not easily applied to social marketing m-games. As stated previously, social marketing m-games are complex in nature as they seek to not only entertain but to go beyond and achieve a behavioural goal. Despite the evidence of literature on serious games, the core purpose of these games appears to be the generation of knowledge and learning rather than the facilitation of behaviour or behaviour change. Given one of the characteristics of social marketing that sets it apart from education is behaviour change and prior literature on serious games does not have this focus, there is no current serious game framework that is directly applicable to a social marketing context. However, while there is no one game attribute framework from a similar discipline that can be used, there are several that hint at important game attributes for social marketing m-games.

A review of the game literature reveals numerous game attribute frameworks (see Table 1). Garris et al. (2002) notes that "*there is clearly little consensus regarding how these essential*

characteristics (attributes) are described" (pg.446). Further, although there have been recent developments in the understanding of game attributes in entertainment and serious games, these research efforts are lacking in comprehensiveness or present issues regarding game attribute overlap (Pavlas et al., 2009). Thus, with so much clutter and confusion regarding game attribute frameworks (Kanev et al., 1998), there is difficulty in identifying appropriate game attributes that could be applied to social marketing m-games. Additionally, game attributes should be systematic and repeatable (Bethke, 2003), but with so many game attribute frameworks in both the entertainment and serious game literature, it is unclear if they are covering important game attributes for social marketing m-games or including attributes which are unnecessary or undesired (Choi et al., 2004).

Table 1: Review of Game Attribute Literature

Game Attributes	Education (n=12)	Psychology/ Marketing (n=4)	Public Health (n=2)	Game Design (n=9)	Totals	This Paper
Sensory Stimuli	3	2	1	2	8	✓
Challenge	10	4	1	7	22	✓
Feedback	6	3	2	3	14	✓
Control	10	4	1	5	20	✓
Social Interaction	5	2	1	5	13	
Setting	10	4	1	4	19	
Character	3	1	1	2	7	✓
Tailoring	4	1	1	5	11	
Behaviour Monitoring						✓
Virtual Experience						✓

**References available on request*

Method

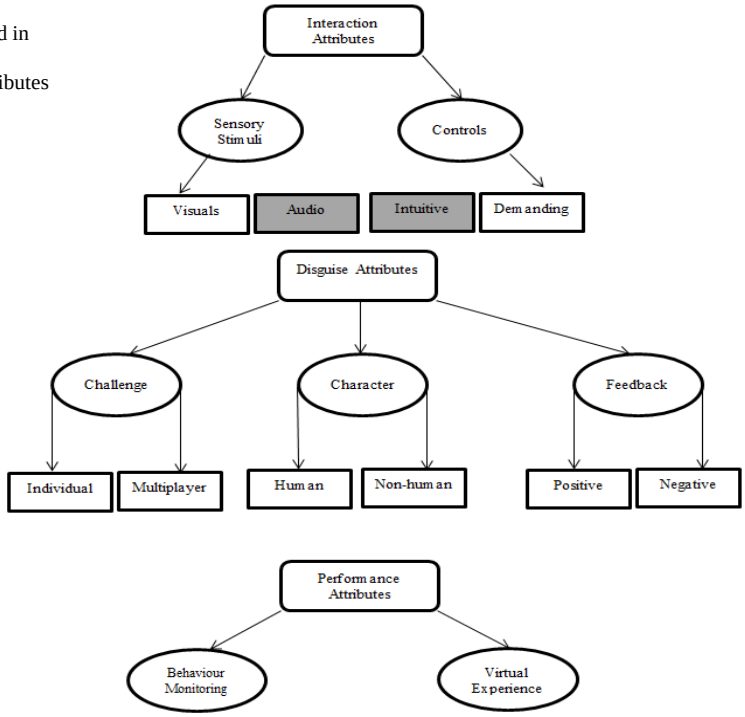
This research used a qualitative approach with four focus groups and a total sample size of 23. Focus groups were semi-structured, with the use of an interview guide and lasted between 60 and 75 minutes each. However, the guide was not followed rigidly and discussions were flexible based upon participants' responses and discussion. Purposeful sampling (Coyne, 1997) was used, which involved the selection of smart-phone owners aged 18-35 years of age, as this demographic is generally the target of most social marketing m-games. Further, using a sample of current smart-phone owners allowed for the downloading and playing of social marketing m-games in the focus group. At the start of the focus groups, participants were presented with four games to choose from: *Dumb Ways to Die*, *My Quit Buddy*, *Quit for You Quit for Two* and *City GT*. These games were selected because they were part of social marketing or behaviour-based programs. Participants played their chosen game for 10 minutes, followed by discussion.

Results

Analysis of the data revealed three categories of game attributes for social marketing m-games, which were: (1) interaction, (2) disguise, and (3) performance. Within these three categories, seven game attributes were identified, including: sensory stimuli, controls, character, challenge, feedback, behaviour monitoring and virtual experience. The categories and preferred game attributes are shown visually in Figure 1 and discussed in detail in the next section. The attributes correspond to two of the three criteria for successful social change outline in Rothschild's (1999) MOA model; motivation and ability.

Figure 1. Preferred Game Attributes of Social Marketing M-games

Note: Boxes shaded in grey signify non-preferred game attributes



1. Interaction Attributes

The first category of game attributes, "interaction", focused upon functions within the social marketing m-game which engaged users senses, namely sight and hearing (sensory stimuli), as well as touch (controls). This category assisted in motivating the users to play (corresponding to the motivation criteria in the MOA model proposed by Rothschild, 1999). The two game attributes which were classified as interaction were **sensory stimuli** (made up of visual and audio themes) and **controls** (made up of intuitive and demanding controls). From the data it was evident that visuals were a key component of sensory stimuli and motivated participants to choose their particular social marketing m-game: "*…the characters look cute, yeah it just looked like it had the best presentation and I guess like the best finish product out of all of them.*" Respondent 1, Dumb Ways to Die. Conversely the majority of respondents indicated they didn't see audio as a necessary component of sensory stimuli. From the data it emerged that **controls** could be themed as *intuitive* or *demanding*. Respondents indicated that controls should be intuitive to the player and not overly demanding, thus intuitive controls were deemed to be preferred.

2. Disguise Attributes

The second category of game attributes to be identified in the data was disguise. This category of game attributes appears to be a particularly important feature of a social marketing m-game as it demonstrates how entertainment can be balanced against achieving a behavioural goal. It appeared that if the behavioural goal was masked or disguised in some way, the user was able to distract themselves from the often uninteresting behavioural goal. In many ways, these features allowed the user to 'pretend' they were just playing a game for fun even though they knew they were really playing it for a behavioural outcome. This second category of game attributes; 'disguise', is made up of the game attributes of **challenge**, **character,** and **feedback**. These game attributes appear to be used by consumers differently in social marketing m-games compared to an entertainment game where these attributes are often the entire purpose of the game.

Challenge refers to contests, tasks or goals a social marketing m-game presents a player. Many participants reported that a level of challenge existed within their chosen social marketing m-game and how an optimal level of difficulty must be present. Although this result was expected and consistent with past research, two themes of challenge emerged, *individual* and *multiplayer*. The majority of respondents discussed that *individual challenge* was a preferred component of challenge and how this would be a key motivational factor in them continuing to use the game. This is illustrated by the following response: *"Yeah I would get addicted to wanting to keep bettering myself at the game."* Respondent 8, Dumb Ways to Die. However, it is important to note that *individual challenges* which were seen as too difficult or too easy were judged negatively by participants. Thus, *individual challenges* must ensure an optimal level of difficulty but also achievability. Participants also discussed how challenge could incorporate rivalry with friends, peers and other players, which was labelled as *multiplayer challenge*. The majority of participants indicated that *multiplayer challenge*, whilst not evident in the social marketing m-games would be a preferred game attribute.

Character describes the avatar or controllable object a player uses to achieve tasks or goals within the game. The characters or objects players controlled within social marketing m-games varied from anthropomorphised characters in *Dumb Ways to Die*, to babies in *Quit for You Quit for Two* to cars in *City GT*. As such the data was coded according to *human or non-human* based characters. *Human characters*, which was evident in both Dumb Ways to Die (anthropomorphised character) and Quit for You Quit for Two (babies), was a preferred game attribute: *"Well I really liked it that you felt like you had an emotional connection to the baby. ….but I did feel I don't know because you have to name the baby and you get to pick how it looks and make it look like you and anyway that was really good."* Respondent 10, Quit for You Quit for Two. Alternatively, a *non-human character* was evident in *City GT* as a controllable car. Whilst respondents initially discussed how the car was a favoured part of the game, the majority agreed there needed to be greater choice and customisation in their selected car.

Feedback is the positive or negative reinforcement a player is given based upon their actions during or after (e.g. bad social/health behavior) playing a social marketing m-game. Similar, to Eagle et al.'s (2013) conditioning and suggestion feature for mobile apps, feedback is used to reinforce actions within the game as well as outside the game (desired behavior) which may be carried out in the form of suggestions or tips. The results indicated that participants distinguished between two types of feedback within a social marketing m-game, *positive* and *negative* reinforcement. *Positive reinforcement* occurred through the accumulation of points, unlockable game features and supporting or encouraging information. *Negative reinforcement* involved the reduction of points or 'lives' within the game or information about the negative consequences of the player's actions outside the game. Respondent #10 discusses how both components of feedback are preferred in a social marketing m-game: *"I'm a bit of a collection whore and try and get everything in it (positive reinforcement)…I thought it was pretty good at the end how if you fail it had a little button that says pledge to stay off the train tracks or something. And it has a little guy holding his heart (negative reinforcement)."* Respondent 10, Dumb Ways to Die.

3. Performance Attributes

The third category of game attributes, "performance", is made up of the game attributes of **behaviour monitoring** and **virtual experience** which provided skills, knowledge and experiences which help the user reach or achieve desired behavioural goals (corresponding to the ability criteria of the MOA model proposed by Rothschild, 1999). Further, the performance category is entirely unique to social marketing due to its focus on assisting voluntary behaviour change. Unlike other games, where the performance focus is upon

entertainment, social marketing m-games require performance game attributes which encourage a social or health behaviour that is voluntary. As such, social marketing m-games are different to other games because they require specific game attributes that facilitate a voluntary behaviour.

Behaviour monitoring can be defined as the customised tracking of a user's behaviour. Interestingly in the literature, previous frameworks (in particular Eagle et al. (2013) for mobile apps and behaviour change) identify tailoring (customisation of information) and self-monitoring (tracking a user's behaviour) as separate attributes. However, these results indicate that these occur simultaneously, thus they have been classified as the same game attribute for social marketing m-games. The following response exemplifies how behaviour monitoring is a preferred game attribute: *"Yeah, so they had me enter in a bunch of information. Then they gave me personalised information so that was really good. Um, and ah that would probably be the only reason I would keep it, to check every week and be like how much money have I saved."* Respondent 5, My Quit Buddy.

Virtual experience can be viewed as a games representation of the real world which simulates behaviour performance virtually. This game attribute was only specific to two of the four games in this study; Dumb Ways to Die and City GT. Participants specified that this was a preferred attribute as indicated by Respondent #9 who discusses how avoiding a call whilst driving in the City GT game was a favoured aspect: *"I liked the fact that it did test you and didn't warn you in any way that you were going to receive a phone call and how that was incorporated into the game. Like I honestly thought it was someone trying to call me. And I was like well….I won't answer it."* Respondent 9, City GT. However, it is important to note that there is an optimum level of virtual experiences. Particularly, participants indicated that there could be "too much" or "too little" virtual experience focus of social marketing m-games as discussed by Respondent #4 who played Dumb Ways to Die: "So the actual game to do with train safety I only did one that whole time I played. I don't know whether it's reminding you often... So yeah for however long we played for…15 minutes there was one of them. So maybe the frequency of actually reminding you about the purpose of the game would have been enhanced if they did that more often."

Discussion/Conclusion

The need to balance entertainment with a behavioural outcome is crucial for a social marketing m-game to ensure that the game is played for sufficient time to influence a behavioural habit. The game attribute category of interaction appears to provide the motivation to continue playing while the category of performance develops the ability to practice the behaviour. The game attribute category of disguise however appears to be the critical factor that enables the balancing act to occur between entertainment and behaviour goals. For this 'pretence' to occur, consumers prefer and expect gaming attributes and their gaming experience to be a similar to entertainment games. Therefore, social marketers should ensure that they design m-games which have an experience equal to that of entertainment games but also ensure that performance game attributes are included to assist in behaviour change or maintenance. The results of this research contribute to the scholarly discussions regarding the designing of technological interventions such as m-games in social marketing. Further, this research builds upon the work of Eagle, et al. (2013) in mobile apps for behaviour change to explore game attributes in social marketing m-games. It is important to note that whilst these preferred game attributes have been identified, their level of preference may vary depending upon the game and the behavioural outcome and importantly, the consumer as well. Future research should attempt to uncover how these preferred games attributes build value for both the consumer and the social marketing agency.

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